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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,902	03/16/2001	Michael H. Myers	2807.2.22.3	6706
35430	7590	06/01/2005		
GARY L. EASTMAN 707 BROADWAY STREET, SUITE 1800 SAN DIEGO, CA 92101			EXAMINER NGUYEN, DUNG X	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Abandonment

Application No.

09/810,902

Examiner

Dung X. Nguyen

Applicant(s)

MYERS ET AL.

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 04 October 2004.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER

DXN
May 05, 2005

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

Phone: (571) 272-3010
Fax: (571) 273-0224

Fax

To: Hal D. Baird	From: Dung X. Nguyen
Fax: 801 530-5955	Date: April 26, 2005
Phone: 801 530-5090	Pages: 1
Re: S/N 09/810,902	CC:
Docket # 2807.2.22.3	

☒ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

•**Comments:** Dear Hal D. Baird;

I write this fax to you to consider the case S/N 09/810,902, docket # 2807.2.22.3.

I want to know the status of the case whether it is abandoned or not, because from October 04, 2004 until now is more than 06 (six) months but I still do not have the amendment. Please call me at (571) 272-3010 to confirm the status of the case. Thanks.

Dung X. Nguyen

Arthur A. Wyldd@us.army.mil
7th 839-2779

Nguyen, Xuan Dung

To: arthur.wyldd@us.army.mail
Subject: Request

Dear Mr. Hal D. Baird;

I am Dung X. Nguyen, the US/PTO Examiner.

I write this e-mail to you to consider the case S/N 09/810,902, docket # 2807.2.22.3.

I want to know the status of that case (whether it is abandoned or not), because since October 04, 2004 until now is more than (06) six months but I have still not received any amendment. Please call me at (571) 272-3010 to confirm the status of that case. Thanks.

Dung X. Nguyen

S/N 09/810902

PATENT APPLICATION
Docket No.: 2807.2.22.3

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

"Express Mail" Mailing Label No.: EL751290751US

Date of Deposit: March 16, 2001

I hereby certify that this patent application in the name of Michael H. Myers for "MODULATION SYNTHESIS APPARATUS FOR PHOTONIC WAVELENGTH SHIFTING," together with fourteen (14) sheets of drawings; Declaration, Power of Attorney and Petition; transmittal letter; fee transmittal letter; and Check No. 1867 for \$355.00, are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Respectfully submitted,



Hal D. Baird
Reg. No. 42,284
Attorney for Applicant

Date: March 16, 2001

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Fa

530-5955

1. An apparatus to synthesize modulation waveforms, the apparatus comprising:
an error input line configured to carry an error signal;
a shift input line configured to carry a first shift signal;
an output line configured to carry a modulation waveform to a destination device;
5 an integration unit configured to receive and integrate the error signal and provide an integrated error signal;
a summing unit configured to sum the first shift signal with the integrated error signal and provide a total shift signal; and
a waveform generator configured to receive a total shift signal and provide a modulation waveform characterized by a frequency proportional to the total shift signal.
2. The apparatus of claim 1, wherein the first shift signal is data keyed.
3. The apparatus of claim 2, wherein the data keying comprises frequency shift keying.
- 15 4. The apparatus of claim 2, wherein the data keying comprises frequency domain orthogonal codes.
5. The apparatus of claim 4, wherein the frequency domain orthogonal codes comprise
20 Walsh codes.

6. The apparatus of claim 1, further configured for data keying, the apparatus further comprising:

a data input line configured to carry a data signal;

the waveform generator further configured to pre-modulate the modulation waveform

5 in accordance with the data signal to provide a modulation waveform that is data keyed.

7. The apparatus of claim 6, wherein the data signal comprises orthogonal codes.

8. The apparatus of claim 7, wherein the orthogonal codes comprise Walsh codes.

9. The apparatus of claim 1, wherein the modulation waveform is a quadrature waveform comprising first and second waveform components substantially 90 degrees out of phase.

10. The apparatus of claim 9, wherein the first and second waveform components are substantially triangular in shape.

11. The apparatus of claim 9, wherein the first and second waveform components are substantially sawtooth in shape.

12. The apparatus of claim 1 further configured for ON/OFF data keying, the apparatus further comprising:

a data input line configured to carry a binary data signal representing ON and OFF positions;

5 the destination device having a dark point;

the waveform generator further configured to receive a binary data signal and provide the modulation waveform corresponding to the dark point of the destination device when the binary data signal is in the OFF position.

10 13. The apparatus of claim 1, configured for frequency shift keying, wherein:

the shift input line is further configured to carry a second shift signal;

the apparatus further comprises,

a data input line configured to carry a binary data signal representing first and second positions, and

15 a multiplexor configured receive the binary data signal and multiplex between the first and second shift signals to provide a data keyed shift signal wherein the first shift signal corresponds to the first position and the second shift signal corresponds to the first position; and

20 the summing unit is configured to sum the data keyed shift signal and the integrated error signal to provide a total shift signal.

14. The apparatus of claim 1, wherein the modulation waveform is substantially triangular in shape.

15. The apparatus of claim 1, wherein the modulation waveform is substantially sawtooth in shape.

16. The apparatus of claim 1, wherein the first shift signal comprises a spreading function.

17. The apparatus of claim 1, wherein the first shift signal comprises a gathering function.

18. The apparatus of claim 1, wherein the first shift signal comprises the difference between two spreading functions.

1. A method to synthesize modulation waveforms, the method comprising:
providing an error signal and a first shift signal;
integrating the error signal to provide an integrated error signal;
summing the first shift signal with the integrated error signal to provide a total shift
5 signal;
providing a synthesized modulation waveform characterized by a frequency
proportional to the total shift signal; and
sending the synthesized modulation waveform to a destination device.

- 10
2. The method of claim 1, wherein the shift signal is data keyed.
3. The method of claim 2, wherein the data keying comprises frequency shift keying.
4. The method of claim 2, wherein the data keying comprises frequency domain
15 orthogonal codes.
5. The method of claim 4, wherein the frequency domain orthogonal codes are Walsh
codes.

6. The method of claim 1, further configured for data keying, the method further comprising:

providing a data signal; and

pre-modulating the synthesized modulation waveform in accordance with the data
5 signal to provide a synthesized modulation waveform that is data keyed.

7. The method of claim 6, wherein the data signal is encoded using orthogonal codes.

8. The method of claim 7, wherein the orthogonal codes are Walsh codes.

9. The method of claim 1, wherein the synthesized modulation waveform is a quadrature
10 waveform comprising first and second waveform components substantially 90 degrees out of
phase.

10. The method of claim 9, wherein the first and second waveform components are
15 substantially triangular in shape.

11. The method of claim 9, wherein the first and second waveform components are
20 substantially sawtooth in shape.

12. The method of claim 1 further configured for ON/OFF data keying, the method further comprising:

providing a binary data signal representing ON and OFF positions;

the destination device having a dark point; and

5 providing the synthesized modulation waveform corresponding to the dark point of the destination device if the binary data signal is in the OFF position.

13. The method of claim 1, adapted for frequency shift keying comprising:

providing a second shift signal;

providing a binary data signal representing first and second positions;

selecting the first shift signal if the binary data signal corresponds to the first position and the second shift signal if the binary data signal corresponds to the first position to provide a data keyed shift signal; and

summing the data keyed shift signal and the integrated error signal to provide the total shift signal.

14. The method of claim 1, wherein the synthesized modulation waveform is substantially a triangle wave.

15. The method of claim 1, wherein the synthesized modulation waveform is substantially a sawtooth wave.

16. The method of claim 1, wherein the first shift signal comprises a spreading function.

17. The method of claim 1, wherein the first shift signal comprises a gathering function.

5 18. The method of claim 1, wherein the first shift signal comprises the difference between two spreading functions.

19. The method of claim 1, wherein the first shift signal comprises a spreading function and a gathering function.